



February 13, 2007

SUBJECT: Council's Interest in Environmental ("Green/Sustainability") Issues – (Information Only)

On January 6, 2007, City Council held a Study Session at the Sunnyvale Senior Center to review and explore the City's efforts toward a "green" and "sustainable" community.

For the purposes of the study session, staff defined "sustainability" as meeting the needs of the present without compromising the ability of future generations to meet their needs—that is, living and behaving in a manner which is *sustainable* into the future. It was explained that the term "green" is being used more and more to symbolize the natural environment's role in sustainability, acknowledging that humankind is entirely dependent on the natural environment, not just to sustain its current quality of life, but for its very existence.

By way of introduction, staff indicated that while there has been a recent increase in the public's interest in "green" and "sustainable" buildings (given the downtown redevelopment project and other high-profile projects), the City has been addressing issues related to environmental protection and creating a sustainable community for decades. And those efforts go well beyond the specific concept of green buildings, encompassing a much broader range of environmental issues. During the study session, each Department presented to City Council a summary of where it has been in this regard, where it is today, and the future issues it faces.

Following the staff presentation, Council was asked to express its interest in exploring future "green" issues. The remainder of this report identifies those issues raised by Council, and discusses the disposition of each concept. Those which would require Council policy action are identified in **bold**; the remainder are operational in nature and will be addressed administratively by the City Manager. (In general, Council establishes City policy; the City Manager interprets, clarifies and implements that policy.)

1. Explore the possible use of solar power at City parks and/or fire stations. A majority of the Council requested that this item be agendized for Council action within 30 days of the January 6 study session. The City has existing policy promoting the pursuit of alternative forms of energy, and solar

power has been explored by staff for many possible applications to date. If Council wishes to ensure that a specific type of solar power is explored at City parks and/or fire stations, then Council action to that effect is in order. Typically, however, determining the type of solar power to be used, and/or determining the most effective and efficient locations to apply solar power are administrative functions of the City Manager. The other reason this issue requires Council action is that there is no funding targeted for this specific application of solar power; therefore, to further pursue this application, Council will need to appropriate a specified dollar amount from a specific funding source.

Status: Staff is preparing a related Report to Council, including clarification of the need for Council action (e.g., budget appropriation) versus operational decisions (e.g., which park or fire station to pilot).

2. Encourage collaborative, synergistic efforts among staff in Sunnyvale, Palo Alto, San Jose, and other local communities to develop sound environmental practices. A specific request was made for staff to work with agencies regarding watershed management.

Status: Collaborative environmental efforts regarding numerous initiatives with other cities and agencies have been underway for years. The City is actively involved in several environmental initiatives supporting sound environmental practices within our watersheds. In particular, Sunnyvale worked with other South Bay cities and the Santa Clara Valley Water District through the Water Protection Collaborative to help develop guidelines and standards for development projects near waterways. Also, the City is a signatory to the Santa Clara Basin Watershed Management Initiative, which is a collaborative, stakeholder driven effort that supports the protection and enhancement of watersheds. City staff has also supported the efforts of the Stevens and Permanente Creeks Watershed Council since their formation in 2003, to assist in their mission of promoting wise stewardship, including the protection, restoration, and appreciation of habitats found in the Stevens and Permanente Creeks watersheds. Staff regularly attends Watershed Council meetings, provides meeting space for the group, and has provided technical assistance to identify and secure funding sources for some of their projects.

3. Consider participation in "Solar American Initiative" through the Department of Energy.

Status: The Solar America Initiative (SAI) is part of the Advanced Energy Initiative initiated by the President and administered by the Department of Energy. Its purpose is to achieve market competitiveness for solar electricity in the U.S. by 2015 (and thus both improve the environment and reduce the Nation's dependence on fossil fuels) through government partnerships with

industry, universities, national laboratories and public entities. It primarily funds joint partnerships for technology development and deployment, with a current budget of about \$85M. The President had proposed raising this by an additional \$65M in the FY2006/07 budget, but given the fact that the budget was passed by a continuing resolution there has been no increase in funding.

In researching the ability for the City to participate in the SAI, staff spoke with the energy experts at the Silicon Valley Leadership Group and a local solar design/installation/service company. In their opinion, with the exceptions of the City advocating for SAI resource increases in the federal FY2007/08 budget and promoting the initiative to local entities, there is little else that the City could do at this time. Staff concurs with this assessment, and will also bring the subject up at a meeting of SolarTECH, a coalition of locale solar and power companies, to explore other options.

4. Consider establishment of a central "green" toolkit to publicize related issues and to educate the public as to available programs.

Status: The City has established a Green Resources page within the City's Web site. The page may be accessed at green.inSunnyvale.com. Information developed by the City, such as the *Building Green Fact Sheet* and the PowerPoint slides used at the January 6 Council study session are available on this site. In addition, future meeting announcements, toolkits and other information will be posted to this page. External links will be periodically updated to allow readers to go directly to appropriate sites, such as the U.S. Green Building Council, California Energy Commission and PG&E. The green.inSunnyvale.com site will be promoted via a news release, KSUN-15 postings and in the *Quarterly Report*. Community Development and Public Works will be invited to provide information and external links to be posted on the Web site.

5. Pharmaceutical waste drop-off: can we establish an on-going program?

Status: The City of Sunnyvale currently funds and participates in the Santa Clara County Hazardous Waste Recycling & Disposal Program. This is a monthly event held in Sunnyvale (every third Saturday of the month; no event in December), where Sunnyvale residents are able to properly dispose of their hazardous wastes, including pharmaceuticals. Residents can bring up to 5 gallons or 50 pounds of hazardous materials free of charge per trip and do not need to make an appointment to use the services.

These ongoing events are held at 164 Carl Road in Sunnyvale, across from the Water Pollution Control Plant.

6. Clarify Sunnyvale's Co2 emissions reduction commitment and communicate that to the public.

Status: At the July 18, 2006 Council meeting, Council directed that the City become a pledging partner of Sustainable Silicon Valley (SSV). SSV offers a default goal for its "pledging partners" to reduce their 1990 levels of CO₂ emissions by 20% by the year 2010. However, pledging partners may choose the buildings/operations they will measure, the baseline year, the percentage reduction goal and the goal year. These elements are necessary to state a goal completely.

Also on July 18, Council authorized \$22,800 in funding for the CO₂ Emissions Reduction project. The project will use a greenhouse gas emissions consultant to:

1. Recommend a CO₂ emissions reduction goal
2. Recommend a baseline year for measuring CO₂ emissions
3. Return with a work plan for CO₂ emissions reduction projects and estimated budget(s) for Council consideration

Staff subsequently developed and issued a request for proposals (RFP) for the consultant work. An inter-department working group evaluated the proposals and recommended that KEMA be selected. KEMA was awarded the contract and began work on the project in early January. Staff anticipates returning to Council with the results of the consultant work and a goal recommendation in the first half of 2007.

Below is a summary of other Council actions in this policy area.

- U.S. Mayors Climate Protection Agreement – Under the U.S. Mayors Climate Protection Agreement, participating cities commit to strive to meet or exceed the Kyoto Protocol goals by taking action (determined by each city) in the city's operations and community. The Kyoto Protocol is an agreement under which industrialized countries will reduce their collective emissions of greenhouse gases by 5.2% compared to the year 1990. The goal is to lower overall emissions of six greenhouse gases - carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, HFCs, and PFCs - calculated as an average over the five-year period of 2008-12. National targets range from 8% reductions for the European Union and some others to 7% for the US, 6% for Japan, 0% for Russia, and permitted increases of 8% for Australia and 10% for Iceland.
- On June 13, 2005, The U.S. Mayors Agreement was passed unanimously by the U.S. Conference of Mayors. Then-Mayor Dean J. Chu signed on to the agreement at that time. However, the City Council has yet to approve a CO₂

emissions reduction goal so the City is not currently listed as an official signatory, although it is shown as such in Al Gore's book, "An Inconvenient Truth."

- The Urban Environmental Accords were originally proposed and adopted at the United Nations World Environment Day held in San Francisco in June 5, 2005. Signatories commit their best efforts to achieve the twenty-one specific actions stated within the Accords by World Environment Day 2012. These actions cover the following areas: energy, waste reduction, urban design, urban nature, transportation, environmental health, and water. In regards to CO₂ emissions reduction, the Accords call for a signatory city to "Adopt a citywide greenhouse gas reduction plan that reduces the jurisdiction's emissions by 25% by 2030, and which includes a system for accounting and auditing greenhouse gas emissions." Note that this reduction target does not indicate a baseline year from which the 25% reduction would be measured. In 2005, Council adopted policy to "support" the accords, but did so "with reservation until the base-year matter could be clarified." At that time, Council did not explicitly adopt a CO₂ emissions reduction goal for Sunnyvale.
- As noted in the July 18, 2006 CO₂ emissions reduction RTC, the City of Sunnyvale has several policies and a Legislative Advocacy Position (3.7, #11, to "support efforts to improve regulation of greenhouse gases") in place that support CO₂ emissions reductions. The Mayor also sent a letter supporting AB 32, the California Global Warming Solutions Act, recently signed into law by the Governor. Staff will be following the development of the regulations that will implement AB 32 and evaluating their potential impacts on City operations.

7. Consider an education campaign to encourage high-school students to use alternative modes of transportation (i.e., fewer cars) to get to school

Status: While this is not an issue over which the City has jurisdiction, staff does meet quarterly with the local school districts to discuss issues of mutual interest and concern. Given Council's existing transportation policies, staff added this item to its most recent quarterly Fremont Union High School District/City agenda for discussion. Superintendent of Schools, Polly Bove, indicated that this is a critical issue for the District and one it is interested in continuing to explore. The District currently subsidizes bus passes for high school students and will explore other strategies to encourage alternate modes of transportation.

8. Explore strategies to reduce the amount of time it takes students to use public transportation from the north end of town

Status: The City has no jurisdiction over this issue. However, staff has discussed this issue with the Fremont Union High School District as well. The District has previously discussed related matters with Valley Transportation Authority (VTA) resulting in the District's subsidy of student bus passes mentioned above. The District has also indicated its desire for "express" (non-stop) service from the north end of town, and would like to further pursue that concept with VTA. Staff has committed to helping broker those discussions through its Intergovernmental Relations (IGR) program.

9. Consider installation of ceiling fans in public buildings to improve efficient climate control in rooms with high ceilings

Status: Staff feels there are situations where ceiling fans can be of benefit to augment heating, ventilating and air-conditioning (HVAC) where limited systems are installed. For example, Facilities staff is currently utilizing ceiling fans in several Park buildings, where there are higher ceilings, to promote air circulation in the warmer months since there is only wall heating units available.

However, complete HVAC systems such as the type at City Hall, Library, Senior Center, Community Center and several other buildings are designed to distribute air in a manner that allows for system efficiency. These systems must also exhaust inside building air to the outside and bring in outside (fresh) air for building occupants. It is possible that ceiling fans may affect this process or push not only hot air down, but also distribute cool air pockets downward as well; as a result, ceiling fans have limited application in these situations. Staff will continue to install ceiling fans where they can improve the efficiency or effectiveness of a heating/cooling system.

10. Consider the provision of additional document-shredding opportunities

Status: Currently, Sunnyvale's Department of Public Safety (DPS) and Department of Public Works are working together on a trial "shredding event" that will allow residents to have backlogs of old records shredded in box-sized quantities by the commercial shredding company that destroys DPS records.

The shredding event will be part of the Health and Safety Fair on Saturday, May 12, 2007 at the Columbia Neighborhood Center. Details of how residents will be able to take advantage of the event are forthcoming and will be publicized prior to the event. Depending on the outcome on May 12, a second event may be scheduled for later in 2007.

11. Consider branding "SUNNY"vale as a good place for solar firms to locate and to market their businesses

Status: Over the past year, City staff has been working with Pacific Municipal Consultants to develop a branding campaign that reflects the character of the City. The consultant initially met with City Council in a study session on August 22, 2006. Following that meeting, they conducted a survey of Sunnyvale residents and businesses, participated in the City's Visioning Fair and they are now preparing "brands" that will be presented to City Council at the February 27 study session. Part of that discussion will focus on how a "new" brand can be used to create a community identity for residents as well as all sectors of the business community. If Council wishes, the subject of marketing the City specifically to the solar industry can be part of that discussion.

12. Consider the establishment of convenient drop-off centers for batteries and other hazardous wastes.

Status: Hazardous Material or Hazardous Waste poses a substantial threat or potential hazard to human health or the environment. This material should be disposed by residents at the Santa Clara County Hazardous Waste Recycling & Disposal Program as discussed above in Item 5 (Pharmaceutical waste.)

Universal Waste is a high volume, lower risk hazardous waste. Examples of Universal Waste include mercury containing devices, batteries (excluding lead acid auto batteries and household batteries), fluorescent lamps and computer monitors, televisions and some camcorders and other devices that contain cathode ray tubes (CRTs), often called picture tubes, which convert an electronic signal into a visual image. Also virtually any electronic device that contains a battery or circuit board is considered hazardous. These materials, except CRTs and electronic devices, can be disposed at the Santa Clara County Hazardous Waste Recycling & Disposal Program as discussed above in Item 5.

Because Universal Waste poses less risk than other types of hazardous waste, the state's regulations allow more disposal opportunities for these materials than the periodic Santa Clara County Hazardous Waste Recycling and Disposal Program events. Residents can dispose of/recycle Universal Wastes at a number of convenient locations and times. Listed below are drop-off sites available to Sunnyvale residents in Sunnyvale, by material type. Residents can call locations for directions and to verify what they accept.

- Batteries (Rechargeable and Household C, AA, AAA, button, etc.)
 - SMaRT Station (408) 752-8530
 - Circuit City (408) 720-1043
 - Orchard Supply Hardware (408) 739-9892
 - Single family residents batteries can be placed in a plastic bag and put on the top of curbside cart for pick-up

- Auto Batteries
 - Most Auto Parts Stores that sell auto batteries will accept non-cracked batteries at no charge.
 - SMaRT Station (408) 752-8530
- Fluorescent compacts & tubes
 - Batteries and Bulbs (408) 737-2852
 - Beacon Lighting (408) 736-4505
 - Orchard Supply Hardware (408) 739-9892
 - SMaRT Station (408) 752-8530
- Electronic Devices (computers, peripherals like keyboards, laptops, mouse, disk drives, printers, TV's, computer monitors, other CRTs, cell phones, digital cameras, stereos and equipment, telephones, answering machines, calculators)
 - Computer Recycling Center (408) 327-1800
 - Amerturk (408) 733-3916
 - M Cubed (408) 752-1560
 - SMaRT Station (408) 752-8530
- Other Electronic Devices (Novelties, electronic games, toys, microwave ovens, small appliances
 - SMaRT Station (408) 752-8530
- Mercury Thermometers and Other Measuring Devices and Switches
 - SMaRT Station (408) 752-8530

13. Study Issue Paper: Explore Requiring Leadership in Energy and Environmental Design (LEED) Certification for all Public Buildings

Status: Staff is in the process of developing the requested study issue paper. In December of 2007, all study issue papers created during the year will be reviewed and ranked for possible study in calendar year 2008.

14. Study Issue Paper: Explore Parking Lot Shade Requirements (% required and timelines for implementing requirements)

Status: Staff is in the process of developing the requested study issue paper. In December 2007, all study issue papers created during the year will be reviewed and ranked for possible study in calendar year 2008.

15. Consider lobbying the PUC to provide financial incentives for those who install solar roof panels.

Status: In response to the Green/Sustainability Study Session, staff was asked to review City policies and draft a letter to the California Public Utilities Commission (PUC) to encourage incentives for installation of solar energy panels. The State of California has incentives in place. The following is a description of the incentive programs offered by the State of California.

As part of Governor Arnold Schwarzenegger's Million Solar Roofs Program, California has set a goal to create 3,000 megawatts of new, solar-produced electricity by 2017 - moving the state toward a cleaner energy future and helping lower the cost of solar systems for consumers.

The California Public Utilities Commission, through its California Solar Initiative, provides over \$2 billion in incentives over the next decade for existing residential homes and existing and new commercial, industrial, and agricultural properties. The California Energy Commission will manage a 10-year, \$350 million program to encourage solar in new home construction, known as the New Solar Homes Partnership. PG&E provides the various financial incentives for solar projects that are installed on homes or businesses.

For more information: <http://www.gosolarcalifornia.ca.gov/> and http://pge.com/about_us/environment/solar/csi.html#topic3

16. Research Plastic Carryout Bag Recycling

Status: Staff researched Assembly Bill 2249, which is an Act relating to the Recycling of Plastic Carryout Bags provided by retail stores. The bill was recently signed into law, and becomes effective July 1, 2007. Essentially this new law requires stores over 10,000 square feet, which provide plastic carryout bags to customers, to provide an "at-store" recycling receptacle for plastic bags. The law requires stores to provide a public awareness program promoting plastic bag recycling, describes how stores are to keep related records, and provides penalties for non-compliance. The law also prohibits municipalities from adopting, implementing, or enforcing a local code that is more stringent than the new state law. This new law "sunsets" on January 1, 2013.

PUBLIC CONTACT

Public Contact was made through posting of the Council agenda on the City's official notice bulletin board, posting of the agenda and report on the City's Web site, and the availability of the report in the Library and the Office of the City Clerk.

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